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PATENT

IBM Docket No. UK9-99-0

In the United States Patent and Trademark Office

Date: August 13, 2002

In re Application of: Renshaw, D.   *Filed:* Dec. 2, 1999

For: Form Data Files Generator

Serial Number: 09/452,927

Art Unit: 2122   *Examiner:* Chuck O. Kendall

Declaration Pursuant to C.F.R. Sec. 1.131

Hon. Commissioner of Patents and Trademarks
Washington, DC 20231

Sir:

I hereby declare that:

1. I am sole inventor named in the US patent application identified above.

2. I made the invention which is disclosed and claimed in the present application prior to December 3, 1998, which date is the filing dated of United States Patent No. 6,263,498 to Alcorn et al (hereafter referred to as "Alcorn").

3. As evidence of the completion of said invention prior to the filing date of Alcorn, attached hereto is Exhibit A. Exhibit A consists of a true photocopy of an invention disclosure which evidences that the claimed invention was developed in a laboratory at IMB Corporation in Hursley Park, Winchester, Hampshire, in the United Kingdom prior to December 3, 1998. The activity contributing to the development of the claimed invention

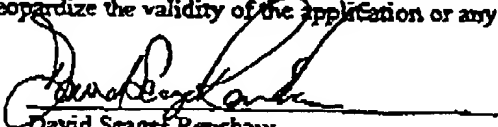*Serial Number: 09/452,927*   - 1 -

U.S.S.N. 09/452,927,
Applicant: David Seager Renshaw
Rule 131 Declaration

was conducted by me prior to Dec. 5, 1998. Dates and names have been redacted in the preparation of the photocopy contained in Exhibit A.

   4. I further declare that all statements made herein of my knowledge are true; and further these statements were made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment of both under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Dated: _13th August 2002_

David Seager Renshaw

Respectfully Submitted,

Gregory M. Doudnikoff, Reg. No. 32,847
Attorney of Record

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Serial Number: 09/452,927   -2-

Use of visual programming tools and JavaBeans components for the creation of dialog manager controlled user interaction definit

Discl sure GB8-1998-0297

Created By: Dave Renshaw   **Created On:**
Last Modified By: Dave Renshaw   **Last Modified On:**

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Required fields are marked with the asterisk (*) and must be filled in to complete the form .

Summary

Status	Submitted
Processing Location	GB
Functional Area	Hursley - JAVA Technology
Attorney/Patent Professional	
IDT Team	
Submitted Date	
Owning Division	NCS
PVT Score	29

Inventors with Lotus Notes ID's
Inventors: Dave Renshaw/UK/IBM

Inventor Name > denotes primary contact	Inventor Serial	Div/Dept	Manager Serial	Manager Name
> Renshaw, D S (Dave)	063795	58/43090	067744	Patterson, R E (Rod)

Inventors without Lotus Notes ID's

IDT Selection

IDT Team: Simon Davies/UK/IBM Alan Webb/UK/IBM	Attorney/Patent Professional: Philip Waldner/UK/IBM

Main Idea
*Title of disclosure (in English)
Use of visual programming tools and JavaBeans components for the creation of dialog manager controlled user interaction definitions

*Idea of disclosure

1. Describe your invention, stating the problem solved (if appropriate), and indicating the advantages of using the invention.
Traditional programs providing user interfaces are created using programming tools and are restricted in the amount of flexibility they provide in the presentation to the user. Programmer productivity has been increased through the use of software componentry including JavaBeans and sophisticated viusl building environments such as IBM VisualAge.

The next generation of user interface applications will be based around natural language understanding (NLU) and Dialog Management (DM) technology and will provide significantly more usage flexibility for the user. These new applications will require new ways of defining programs. Often these programs are defined in terms of "forms", akin to the paper forms used in business today, and the relationships between these forms. Much of the application logic is automated or hidden behind dialogue management software which acts on the form definitions and drives the user interface.

The "form" definitions needed for these new style applications are often defined using som form of text mark-up, XML-bas d or otherwise, and there is a significant lack of programmer tools for this job. Much of the technology for visual composition of programs, which has been developed over recent

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Use of visual programming tools and JavaBeans components for the creation of dialog manager controlled user interaction defini

years, seems likely to become unusable in this new environment.

It should be possible to re-use the visual building technology of todays leading programming tools by creating a set of "form" definition JavaBeans. Instead of having the visual builder tool create the application which is executed, we use it to create an application which generates the text/mark-up definitions of the forms. Each "form" is created as a JavaBean component containing a number of constituent parts. Each form and it's constituent parts has a number of properties that define it's runtime behaviour. Sophisticated property editors and customizer can be provided to help the programmer with the more complex tailoring of the NLU components.

The defined forms themselves may be combined into larger applications through re-use allowing a set of business transactions to be defined and related. When the set of forms that comprise an application is complete, the top-level application may be executed. The execution of such an application results in the creation of a number of text files containing the mark-up which is needed by the dialogue management component of the system.

At runtime the mark-up files rather than the application are loaded into the execution environment.

2. How does the invention solve the problem or achieve an advantage,(a description of "the invention", including figures inline as appropriate)?

3. If the same advantage or problem has been identified by others (inside/outside IBM), how have those others solved it and does your solution differ and why is it better?

4. If the invention is implemented in a product or prototype, include technical details, purpose, disclosure details to others and the date of that implementation.